ANTIMICROBIAL ACTIVITIES OF *Oroxylum indicum* LEAVES

SAZAITUL FADZILAH BINTI SABRAN

BACHELOR OF SCIENCE (Hons.) BIOLOGY
FACULTY OF APPLIED SCIENCES
UNIVERSITI TEKNOLOGI MARA

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This Final Year Project Report entitled "**Antimicrobial Activities of *Oroxylum indicum* Leaves**" was submitted by Sazaitul Fadzilah binti Sabran, in partial fulfillment of the requirement for the Degree of Bachelor of Science (Hons.) Biology in the Faculty of Applied Science was approved by

En. Mohd Syahril bin Mohd Zan
Supervisor
Faculty of Applied Science
Universiti Teknologi MARA
Pekan Parit Tinggi
72000 Kuala Pilah
Negeri Sembilan

Ilyanie binti Haji Yaacob
Project Coordinator
Faculty of Applied Sciences
Universiti Teknologi MARA
Pekan Parit Tinggi
72000 Kuala Pilah
Negeri Sembilan

Dr. Nor'aishah Abu Shah
Head of School of Biology
Faculty of Applied Sciences
Universiti Teknologi MARA
Pekan Parit Tinggi
72000 Kuala Pilah
Negeri Sembilan

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ABSTRACT

ANTIMICROBIAL ACTIVITIES OF *Oroxylum indicum* LEAVES

Medicinal plants have been used as a natural source of medicine from one generation to another where they have their own personal benefits to human in treating diseases. Nowadays, there are a lot of therapeutic problems regarding the bacterial resistance to synthethic antibiotic happen among our community. The increasing report on the side effects of these synthetic antibiotics has led to the screening of medicinal plants for antimicrobial activity, which *Oroxylum indicum* is not an exception. *Oroxylum indicum* belongs to the Family Bignoniaceae, is an important herbal folk medicine that have been used in many Asian countries to cure disease. Each part of this plant reported in previous phytochemicals studies to have various bioactive compounds and secondary metabolites that function in biochemical defense. This study have been done to evaluate the antibacterial activity, and to compare the effectiveness of methanolic leaf extract of *Oroxylum indicum* against selected bacterial strains that is most common in bacterial resistance. On the basis of result from disc diffusion, the antimicrobial assay of Minimum Inhibitory Concentration (MIC) have been done that is visual inspection to determine the lowest concentration of extracts that can inhibit bacterial growth. The result revealed that at 100 mg/mL of leaves extract concentration, *Bacillus subtilis* showed highest diameter reached 15.33±3.21 mm and the lowest inhibition zone was against bacteria *Salmonella typhimurium* with diameter 8.33±7.3 mm. The methanolic solvent extracts of *Oroxylum indicum* leaves exhibited antimicrobial activity against all the microbes under study. This provided evidence that leaves of *Oroxylum indicum* plant could be the source of potent antibacterial medicine, especially in the treatment of highly resistant bacteria by increasing the concentration of leaves extract. Further studies regarding leaves part should be more focused to avoid extensive cut-down of whole plant as obtaining leaves does not affects much to the plant compared when obtaining stem, bark or roots part.